

Examining the Content & Face Validity of English Placement Test at the Technical College of Civil Aviation & Meteorology, (TCCAM) Tripoli, Libya.

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Abstract

This paper aimed to examine the effectiveness of the placement test PT used at Technical College of Civil Aviation & Meteorology (TCCAM) by exploring teachers' and students' perceptions of the PT through questionnaires, interviews, and semi-structured interviews. Also, it investigated the format and content validity of the PT and students' PT scores against their mid-term scores. It was found that face validity of placement test PT at (TCCAM) varied among teachers and students. The findings indicated that majority of teachers and students emphasized the importance of including the listening and speaking components in the placement test. It also suggested that in order to design a new placement test, language teachers should take into consideration the findings of this research and pilot it to test its effectiveness for future research. Therefore, for future research, it is also recommended in order to design a new test one should take into consideration the process & design of test specifications.

Keywords: Placement test, Language Proficiency, Test Reliability, Aviation English, Content & Face Validity

■ ملخص:

تهدف هذه الدراسة إلى التحقق من فاعلية امتحان تحديد المستوى المستخدم في كلية تقنية الطيران المدني و الأرصاد الجوية اسبعية عن طريق البحث في آراء الطلبة و أعضاء هيئة التدريس من خلال وسائل جمع البيانات من استبيان و مقابلات. كما بحثت هذه الدراسة في صلاحية محتوى و شكل امتحان تحديد المستوى ونتائج امتحان تحديد المستوى ومقارنتها بنتائج الطلبة في الامتحان النصفى. أظهرت الدراسة بأن صلاحية امتحان تحديد المستوى بكلية تقنية الطيران المدني كانت متباينة بين أعضاء هيئة التدريس والطلبة. أيضا أظهرت نتائج الدراسة بأن غالبية أعضاء هيئة التدريس و الطلبة قد أكدوا على أهمية دمج محتوى المحادثة و الاستماع من ضمن امتحان تحديد المستوى. اقترحت الدراسة بأنه لكي يتم تصميم امتحان تحديد مستوى جديد يجب على أعضاء هيئة تدريس اللغة اخذ في الاعتبار نتائج هذا البحث وتجربته لاختبار فاعليته من أجل دراسات في المستقبل. أيضا أوصت الدراسة لكي يتم تصميم امتحان تحديد مستوى يجب على المرء أن يأخذ في الاعتبار عملية وتصميم مواصفات الاختبار..

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1. Introduction

Placement tests place students into their suitable levels according to their English abilities at the start of a university study program or courses (Heaton, 1988; Brown, 2004). Placement tests (PTs) differ regarding the language components included in the test, for example, reading and writing sections or to include speaking and listening sections and sometimes mathematics and computer skills (Heaton, 1988). However, At TCCAM, the placement test PT for foundation program is divided into three different PTs to include: English grammar, mathematics and computer skills according to TCCAM, 2011). It has always been seen as an issue among language teachers at TCCAM that most students do not appear to suit their suitable level of English where they have been placed. It has been noted that their actual levels are either beyond or below their level of competence which result in unequal opportunities for these students in the classroom with mixed language abilities ending up failing the course at times. This has been seen as an disadvantage by language teachers and other teachers in the foundation program. In spite of the importance of the placement test PT in reducing the number of students who might face a challenge of failing academic degrees because of poor language and study skills (Fulcher, 1997), and this in turn could have a counterproductive effect. In other words, administering an invalid and unreliable placement test that misplaces students in other levels than their actual language levels may lead to students to have negative attitudes towards university study and badly affect other students' language proficiency altogether no matter how poor it is. As a consequence, some teachers' and students' have experienced some boredom and frustrations regarding some students' levels in the classroom which creates challenges for both teachers and students. As a result, the researcher's' general observation of the negative impact of designing and conducting such tests has been the driving force of this study. This research aims to (1) investigate teachers' and students' perceptions of the English PT at TCCAM by conducting a questionnaire and interviews. It also aims to (2) examine English placement test PT validity at TCCAM by comparing students' PT results against their Midterm results and the number of failures in their midterms. Finally, it aims to 3) suggest making some changes to improve the Placement test PT based on the results of this study.

2. Literature Review

Over the past two decades, most Technical Colleges and technical institutes that belong to the National Board of Vocational & Technical education in Libya began using the English language curriculum in their Teaching English Programs as a medium of instruction. Aviation English was one of these programs that began at the technical college of civil aviation & meteorology (TCCAM) over twenty years. This plan for change first was seen a challenge and using the new English Foundation Program encountered a number of challenges. One of these challenges was finding a reliable criterion to classify students according to their accurate language level that suits their present language skills and abilities.

English Placement Tests have always been designed to help place students into their actual language level. However, it has been noted that some students have frequently complained that these placement tests have misplaced them. Other students have believed that their current language level is higher than their classmates in the same class; others have thought that their current level is beyond their language competence and that they should be in a lower level as they have experienced some problems getting along with their classmates. On the other hand, some teachers have also constantly criticized these tests due to the fact that they have seen discrepancy in students' language levels and have some qualms about the ability of some students for the course they are placed in.

Secondary school graduate students who are enrolled in a higher institute or a higher technical college in Libya begin the Foundation Program (FP) before starting their academic study. The purpose of this is to develop the students' English language competence along with other academic skills. In the Technical College of Civil Aviation & Meteorology (TCCAM), FP results place students into five levels of English language. These levels are as follows: A (equivalent to upper intermediate intermediate), B (equivalent to intermediate), C (equivalent to pre-intermediate) D (equivalent to elementary) and E (equivalent to beginner) (TCCAM, 2012). Thus, placement tests help place students according to their actual language proficiency in the foundation program FP. The main purpose of the test is to measure students' language proficiency level and place them accordingly. Based on the placement tests scores, students are divided into five groups as it is indicated in Table 1 below.

Table 1. Results of English Placement Test (TCCAM, 2011)

Placement Test Score (out of 70)	
0-19	(E) Beginner (equivalent of IELTS 2.5 or below)
20-34	(D) Elementary (equivalent of IELTS 3.0)
35-49	(C) Pre-intermediate (IELTS 3.5)
50-64	(B) Intermediate (IELTS 4.0)
65-70	(A) upper Intermediate

Students whose score is 50 and above in the placement test have satisfied the requirements for Maths, computer sciences and physics and will therefore enroll in the foundation program.

Using placement tests to place students into appropriate levels has been widely recognized in the literature over the past 20 years. Many research studies have stressed the significance of placement test in assisting students to pursue their studies later by placing them in the appropriate courses that suit their needs (Casazza & Silverman, 1996; Maxwell, 1997; McCabe, 2000). Therefore, many colleges nowadays require a placement test for their students before joining the colleges (Gerlaugh, Thompson, Boylan & Davis, 2007). Likewise, in Libya, most public and private universities and colleges require post-secondary school graduates students to take a placement test before stating their academic programs.

In spite of the importance of placement tests; however, question of the reliability and validity of those tests are still debatable. Most placement tests undergo psychometric measures and offer numeric scores and each institution relates certain numeric score to a specific level. However, placement test at the (TCCAM) are still disputable in terms of test validity and reliability. For example, Table 1 above shows the classification of placement test scores and the equivalent levels in TCCAM. New students are instantly placed in a level based on their scores in the placement test. This in turn raises the following question regarding PT validity, does this PT test what it is supposed to test (Brown, 2004). In other words, does it measure students' real level of English language proficiency?. However, research studies on placement tests express similar concerns. For instance, Arkoudis (2011) stated that sector's blind faith in language testing inhibits the development of more robust ways of addressing English language outcomes for graduate students.

Belfield and Crosta (2012) pointed out that most placement tests are commonly used in a binary capacity. That is to say, if a student gets a specific score, this indicates that he/she should be placed in the level equivalent to that score obtained.

However, this procedure might create problems and is considered unjustified for some reasons. First, statistical errors often occur when marking these tests. In other words, some errors may happen during the calculation process which result in placing students in wrong levels. Also, some of these tests contain items of multiple-choice questions. According to (Brown, 2004) these tests consisting of multiple-choice questions increase the students' chance of luck. For example, a student who is not sure about the answer for a given question might choose the correct answer and obtain a high score. As a consequence, this might place students in a high level according to the score obtained despite their actual level of English language. Similarly, the placement tests PT used in TCCAM contain 30 multiple-choice questions that weigh 30 marks; 15 questions that test grammar and the other 15 questions that test reading, in addition to two writing tasks that weigh 50 marks.

Here, one can argue that the possibility of luck in the TCCAM placement test might be high. Consequently, this might place students in levels that do not reflect their real level of English language proficiency.

Furthermore, the potential of students cheating in a placement test by copying answers from their classmates in such tests increases according (Heaton, 1988). The likelihood of guessing strategies may increase due to the test format and as a result this might help students get high scores and place them in a levels that do not suit their real level of English language.

Another issue here is the exclusion of speaking and listening components from the placement test in spite of the fact that students will be tested on both speaking and listening in their midterm and final exams. This exclusion might have a great impact on the scores obtained by the students in the placement test since different students may vary regarding areas of strengths and weaknesses based on their learning strategies. For example, Versant English placement test which is a type of computer-based test that aims to assess students comprehension of the language in the four language skills and its tasks differ from reading aloud to dictation (Versant guide, 2011). Another English Placement Test at the University of Illinois that concentrates on students performing certain tasks such as reacting to an oral interview or reading a text and listening to a lecture on the same given topic in order to write a well-organized essay (Illinois, 2012).

Integrating the four language skills in placement test is highly likely to give more accurate and valid results of students' language proficiency since language learning does not take place only through reading or writing. On the contrary, there are students who can learn better through listening or speaking the language (Rao, 2014). As a consequence, Scott-Clayton (2012) strongly recommended not to judge students' real level on a placement test score especially if it does not integrate all language skills.

This issue raises some concerns on the validity of the English placement tests currently used at the Technical College of Civil Aviation & Meteorology (TCCAM). In other words, does this test measure what it is supposed to test (Brown, 2004)?

Thus, this research paper mainly focuses on the investigation of this issue of validity. In a study by Wall, Clapham and Alderson (1994) as cited in (Fulcher, 1997) to explore the validity and reliability of PT administered at University of Surrey for the new students. In their study, they investigated the different types of validity which are face (perceptions of students), content, construct and concurrent validity. Their findings demonstrated a challenge in finding appropriate external criteria to conduct a concurrent study. Fulcher (1997) also investigated in his study the face validity and criteria for scoring which are both important principles of assessment. His study results of face validity revealed that the most of the students who participated in the questionnaire thought that the test would be fair, but some others expressed their worries about the ambiguity of some test items. Few other students wanted longer tests while few others requested subject-specific content.

Another study by Research Note (2005) stated that there is a correlation between students' placement test scores and their grades in college-level courses. In other words, students who were placed in the foundation program did better and scored higher marks than those who passed the PT with a cutoff score. A study by Shin and Kin (2006) who investigated some principles of PL that consisted of reading and writing components. They examined the reliability and validity of the design as well as evaluation and results analysis of the test. The findings of their study revealed positive results in terms of reliability and validity of the test which consist of two reading tasks which was worth 12 marks and should be completed in 20 minutes and a descriptive writing task 20 minutes).

Research studies regarding placement test at Technical Colleges (TC) level are very few and almost rare. Despite the fact that each technical college or higher technical institute in Libya has its own assessment instruments and testing

procedures, the number of meetings organized to improve assessment methods like placement tests still remain at the meeting venue and seem restricted to that place due to the fact that placement test is seen as an in-house testing instrument. Despite the fact that placement tests are in-house designed and might be invalid and unreliable, there are some psychometric placement tests that are more successful than others in accurately placing students in their appropriate level. Therefore, this paper mainly aims to examine the content and face validity of the English placement tests currently used at TCCAM. More specifically, it attempts to answer the following two questions:

- 1). What are teachers' and students' perceptions of the current English placement test at TCCAM ? (Face validity).
- 2). Does English placement test used in TCCAM accurately measure students' actual language proficiency level? (Content Validity)

3. Methodology

This paper will investigate face validity of the placement test; that is teachers' and students' perceptions of the English placement test at the TCCAM. Also, the paper will investigate how representative the PT is of what students' need in their future study. The study will also examine the placement test's content, components, and format and assessment criteria. Regarding the test validity, the research will compare students' placement test scores against their midterm scores.

3.1 Participants

This study was conducted at the Technical College of Civil Aviation & Meteorology for the foundation program in December 2018 to investigate the validity of TCCAM English placement test. This study employed a questionnaire and semi-structured interviews. 150 foundation students responded to the questionnaire that aimed to explore the students' perceptions of the Placement Test. Questionnaires were selected as they are efficient in terms of collecting a large amount of data saving time and money (Sapsford, 2007).

Furthermore, 8 teachers were interviewed to explore their perceptions of the current placement test format and content and whether they had encountered a case where they believe PT was not valid enough to place students in the right proficiency language level and their reaction to such situations. Furthermore, similar to Research Notes (2005) approach to testing Surrey PT validity, students' PT results were compared to their Mid-Term (MT) scores to test PT results validity. All participant students were selected

randomly from TCCAM .

3.2 Procedures

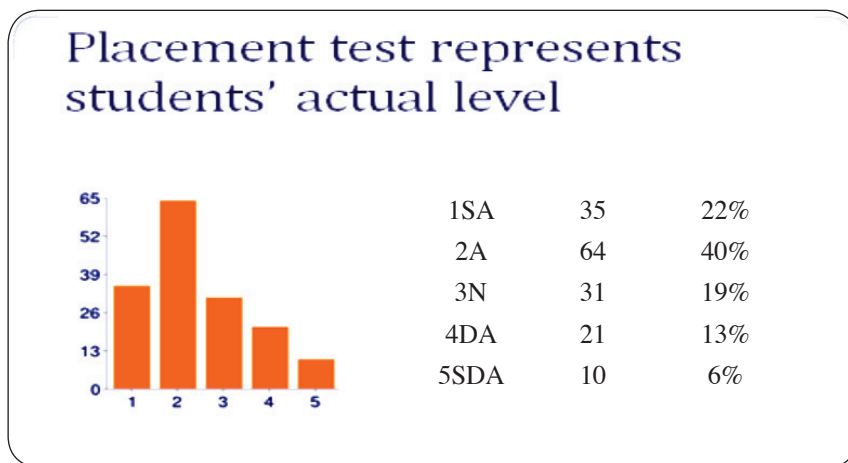
After collecting the placement test results, the new students were given eight weeks of language instruction (8 out of total 16 weeks of study) during their first academic year in the foundation program. After this 8-week period of language instruction, students took their mid-term exams and their test result scores were calculated. Questionnaires were then given to students and to teachers. Semi-structured interviews were conducted with teachers and interviews were conducted with two researchers and were recorded too.

4. Results and Data Analysis

4.1 Students' and Teachers' Perceptions of placement test PT at TCCAM (Face Validity)

4.1.1 Students' perceptions

Results from the questionnaire regarding students' perceptions of English proficiency placement test PT at TCCAM were as follows:



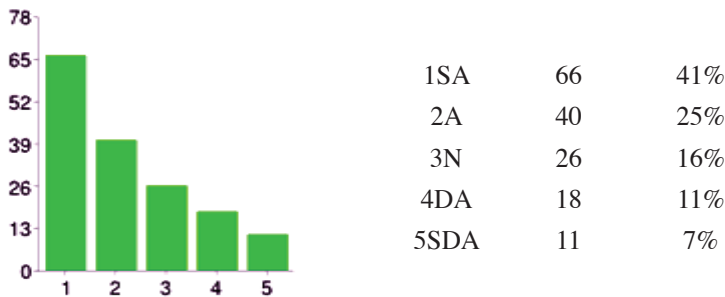
Graph 1

Graph 1. Placement Test represents students' real language level

1). Students' perception one: "Placement test represents our actual level" results, as indicated in Graph 1 above, have shown that 64% of participants agreed that the placement test placed them in their real language level. However, (18%) were neutral and (18%) disagreed. This means that less than a quarter of the students actually think that they have been misplaced and

that their actual level should be lower or higher than what their placement score revealed. This finding is in the line with Fulcher’s (1997) results which showed that the most of the students agreed that the test was fair and seemed right (face validity). Other factors might have affected very few students’ responses such as students’ physical or psychological factors. Therefore, issues of practicality need to be taken into account while administering the exam such as light, room size, noise, exam start time and furniture to yield better insights on students’ performance and test results.

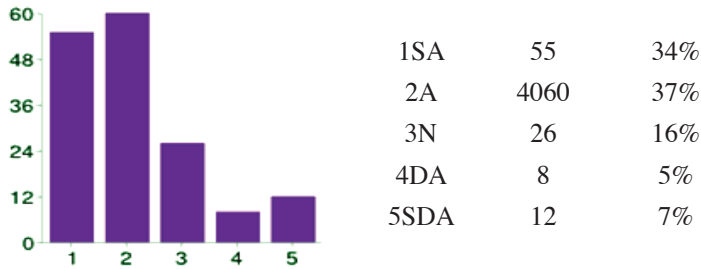
The need of Listening and Speaking Sections in PT



Graph 2

2). Students’ perception two :”there is a need for listening and speaking sections in the PT”. results as indicated in Graph 2, have showed, that 67% of the respondents thought that there is a need for including both listening and speaking components in placement test, while 17% were neutral and only 16% disagreed. This indicated strongly that many students think that including the two components of speaking & listening in PT might certainly change their placed levels as they are tested in these components in the mid-term tests. As for learning and multiple intelligences (Rao, 2014) states that it is advisable to include different skills in the same assessment tool to cater for different learning preferences. Although most students were satisfied with exam components and items, the 16% of students who disagree might be those students who are good at speaking or listening that are not included in the PT. This finding is similar to Fulcher’s (1997) respondents who requested longer tests to have better judgments of their language skills.

Students' satisfaction of the current level which they are placed in.

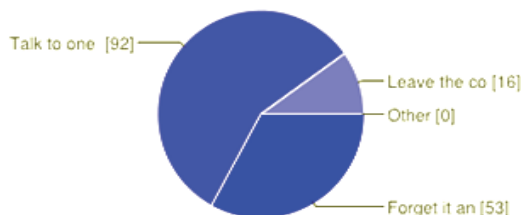


Graph 3.

Graph 3. I am satisfied with my current level.

3). Graph 3 above indicates that 70% of the students were satisfied with their placed levels, while 18% felt neutral and only 12% were dissatisfied with their current placed level. This means that after 8 weeks of language instruction in their first semester, the majority of students felt happy and content with their current levels. Students' dissatisfaction could be attributed to their experience of feeling bored placed in a lower level group or feeling challenged by being placed in a higher level group where they felt as if they were left behind to face embarrassment and feeling ignorant.

What to do if you're misplaced in wrong level?



Graph 4

4. What to do if you are misplaced in a wrong level?

4). In response to the question “What would you do if you are misplaced in the wrong level?” 92 of the respondents said that they will talk to their teachers, 16 students stated that they will leave college while 53 indicated that they will forget it and try to keep up. This means that 53 of the students believe that they cannot change their placed language level in their academic programs.

4.1.2 Teachers’ Perceptions of placement test at TCCAM (Face Validity)

Eight teachers of the English language foundation were interviewed to explore their perceptions of the placement test PT and their suggestions to develop it. Their experience in teaching English and assessment varied from 3 years to 10 years. All of the teachers in the interview had complained that some students were placed in the wrong level in one of the A, B or C levels. Some of those teachers had encountered some difficulties when teaching students with mixed language abilities in class. One teacher was not shocked and bothered by this mix-up at all and said “technical Colleges are told to enroll all new post-secondary school graduates”, and as a consequence this might create a problem of not excluding low level students from joining the college. Two other teachers said that “they had experienced some problems in teaching the English course materials which seemed difficult for low level learners of English. They added “we have tried to work hard with students who are willing to improve to raise their levels”. Four teachers made their suggestions to include speaking and listening skills in the placement test since they are important skills and because some students are good speakers and listeners which advocates the learning and multiple intelligences theories (Rao, 2014).

Two other teachers suggested that “the college (TCCAM) should modify the reading component to better judge the students’ reading ability rather than an assessment tool of grammar or vocabulary. They also added that “the writing essay questions need depth originality, style and use of language features’.

Here it can be argued that although the college placement test included both components; reading and writing tasks, the reading component is very short consisting of a text accompanied with short WH-questions. This reading text is not long enough to test students’ skimming and scanning strategies.

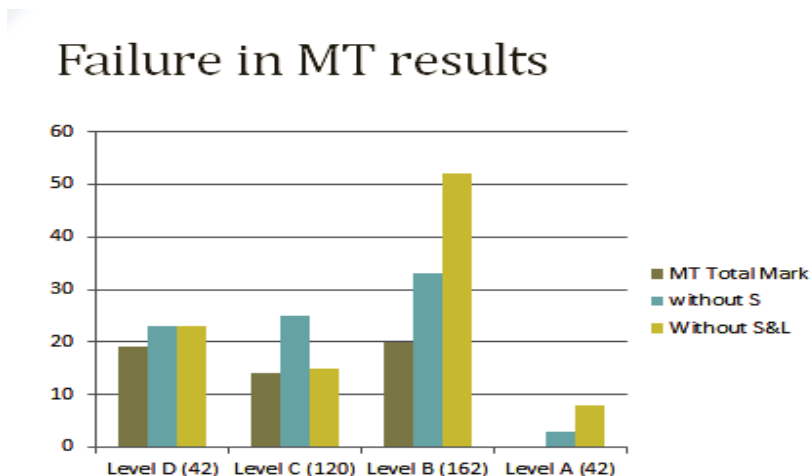
This reading component only trigger students to look for details. Also, the writing component in the placement includes familiar topics to the students: Topics that students were given to them in class or even memorized at school which supports the view of “rehearsed and practiced essays” argued by one of the interviewed teachers. The Most teachers here suggested adopting or creating a computerized placement test that will increase the challenge of questions and ease of marking as the students’ progress answering correctly by easily placing them in their suitable language levels. However, these types of tests according to (Heaton,1988) involve objectivity in marking but raise availability of the luck element by guessing.

4.2 Content Validity of Placement Test

4.2.1 Analysis of Students’ PT Scores against MT Scores

The purpose of this study was not only to validate the TCCAM foundation program but the TCCAM placement test PT. Thus, the students’ midterm result scores were measured and compared against their placement test PT scores after 8 weeks of instruction between the PT and the MT tests. The findings indicated that there was a corresponding positive correlation between students’ placement test scores and their mid-term result scores.

Graph 5. below shows the number of failures in students’ Mid-Term MT results



Graph 5

Graph 5 above indicates the percentage of students’ the failure in the mid-term test in each level. It can be seen that there is increase in the failure percentage when the speaking and listening component results were excluded . For example,

in level D, , 18 students who failed their mid-term MT scored less than 20% out of 40%. However, that number went up to 23 when both speaking and listening marks were excluded. As for Level B, the results looked similar with 20 students who failed the their mid-term exam MT. The number rose to 54 students failed the exam when both speaking & listening test scores were excluded taking in consideration that the total percentage of the mid-term MT went down to 25% since speaking & listening were worth 8% each. Therefore, it could be argued here that speaking and listening components need to be an integral part of the placement test since they make a difference regarding students' passing score rate. Therefore, these results seem to indicate low reliability because of the 8 week period of teaching interval between the placement test and the midterm . To further explain it, having a language instruction for a long period of time is highly likely to have a positive impact on the students' language learning. Moreover, the difference in the two test purposes, format and content might make this comparison of results unreliable.

4.2.2 An Interview with two researchers

The researchers analyzed students' PT papers due to their experience and deep knowledge of the PT format and content. They indicated that TCCAM placement test should incorporate essential other language components such as listening and speaking that are important to students majoring in Aviation sciences and air traffic control and air craft management since they will need them in the workplace in future. Moreover, the researchers argued that the two other language constructs of reading and writing are under-represented in the PT because the reading part does not test students' reading comprehension skills but it tests grammar and vocabulary and that proved similar responses from the teachers interviewed. Also, the writing part includes structured questions and that encourages students' rehearsed and practiced answers.

In response to the question whether the placement test measures students' actual language proficiency, they said "no". they also added that in their previous semester they had three level B students in their level C class" and that those students' language levels were better than their classmates. They attributed this mismatch between students' performance and PT scores, first, to the exclusion of speaking and writing constructs in the exam . Secondly, the percentage of the multiple choice questions in the exam is 90% which is not practical as it does not reflect the real-life language as was advocated by Brown (2004). Thirdly, this placement test does not assess the teaching objectives or learning outcomes since Most students complained that what they were assessed in did reflect what

they had been taught before. This claim was made by some teachers too, that is content validity.

The researchers argued that this badly-designed placement test has a negative impact on students' interest in learning. They also added this placement test might be a valid test but it cannot be reliable. They also suggested incorporating speaking and listening components in the test in order to solve this issue of misplacing students in wrong levels.

5. Conclusion

This study investigated the effectiveness of the placement test used by TCCAM to explore teachers' and students' perceptions, comparing students' PT scores against their MT scores and seeking expert analysis of the exam content and format.

The findings showed that a big number of students failed the mid-term exam when the speaking and listening components were excluded from the overall score. The study suggested incorporating speaking and listening constructs in the placement test in order to raise exam content validity. In general, the range of face and content validity of TCCAM English placement test varied among students and teachers. Some teachers suggested using computerized tests as they are better means of assessing students' proficiency level as they are more reliable.

Therefore, for future research, it is also recommended in order to design a new test one should take into consideration the process & design of test specifications to test its effectiveness. Also, a psychometric analysis of test development is essential to check its clarity and consistency. Moreover, other extra linguistic factors, for example, environmental and health factors should be taken into account and should be examined as they have a strong impact on students' language learning in the field of language assessment & testing.

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